US EPA, Region 9
NPDES/DMR, ENF-4-1
75 Hawthorne Street
San Francisco, CA 94105-3901
Attn: Colby Tucker

May 23, 2018

via email

RE: Compliance with Administrative Order on Consent – Docket No. CWA-309-2018-0002 Final Report

Dear Mr. Tucker,

In accordance with the Final Administrative Order on Consent (AOC) for Platforms Ellen (CAF001147) and Elly (CAF001148) Docket No. CWA-309-2018-0002, Beta Offshore ("Beta") is pleased to provide this report that describes the actions Beta has taken to comply with the aforementioned AOC. All changes and amendments detailed in § IV of the AOC were completed by May 8, 2018 ahead of the compliance deadline of May 10, 2018. After careful review of this report, Beta believes the EPA will find Beta in compliance with CWA §§ 301 (a) and 402 and U.S.C. §§ 1311 (a) and 1342.

Please feel free to contact me if you have any questions or require further information.

Sincerely,

Bruce Berwager
Vice President of Operations

cc: Eric Willis – General Counsel
Desean Garnett – EPA Office of Regional Counsel
James Salmons, BSEE Pacific OCS Region

111 W. Ocean Blvd., Ste 1240 | Long Beach, CA 90802 | Office: 562-628-1526 | Fax: 562-628-1536

Beta Offshore
Final Compliance Report

Administrative Order on Consent Docket No. CWA-309-2018-0002

Platform Ellen (CAF001147)

Platform Elly (CAF001148)

Beta Offshore
111 West Ocean Boulevard, Suite 1240
Long Beach, CA 90802

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Section A. Summary

Beta Operating Company, LLC (d.b.a. "Beta Offshore" or "Beta") is an oil and gas production company with its office located in Long Beach, CA and operational assets located on three offshore fixed platforms (Ellen, Elly and Eureka) in the federal Outer Continental Shelf (OCS). These are located approximately 12 miles south of Long Beach, CA and 9 miles west of Huntington Beach, CA. Oil production wells are located at Platforms Ellen and Eureka, and all produced fluids are shipped to Platform Elly for processing. Platforms Elly and Ellen are two separate platforms attached by a bridge. Platform Elly serves as a processing facility and contains most of the production treatment processes. Platform Elly is the only platform that may occasionally discharge produced water.

Beta is dedicated to being a responsible offshore operator and a cooperative and conscientious business partner with the EPA and all other regulatory agencies, as well as the community in which we operate. Beta takes compliance, protection and safety of our personnel and environment very seriously.

Beta is covered by the EPA NPDES General Permit CAG280000, and Beta performs routine monitoring, recordkeeping and reporting for the platforms via the EPA NetDMR online tool.

As stated in AOC Section III. FINDINGS OF FACT AND DETERMINATIONS OF LAW, EPA representatives performed an inspection of the Facility to evaluate compliance with the requirements of the General Permit. Based on the Findings of Fact and Determinations of Law, EPA ordered and Beta agreed to make the changes itemized in Section IV. ORDER FOR COMPLIANCE ON CONSENT 30. a - g. The following describes Beta's actions for compliance with this Section. A complete timeline of activities associated with compliance is attached as Section B of this report.

AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30. a. Respondent shall collect and analyze samples of zinc in separate bottles from those it uses for oil and grease.

Beta rarely discharges produced water from the Produced Water NPDES Discharge 002 location. It has been over a year since the last discharge. In order to be prepared for a discharge at any time, Beta has a case of 250 milliliter poly sample containers with nitric acid preservative for the collection of produced water for zinc analysis. Additionally, Beta has prepared three igloo coolers as 'to-go kits' that have the proper number and type of sample containers for a produced water discharge in the event one occurs. The kits are located in the Elly Water Lab, approximately 20 feet from the NPDES Discharge 002 sample location. Each 'to-go kit' contains one container for the collection of a sample for zinc analysis that is different from the sample bottles used for oil and grease analysis. Upon use of one of the 'to-go kits', the contents of each cooler will be replenished with new unused sample containers in accordance with the approved sampling protocol.

Compliance with AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30. a. was achieved on April 16, 2018.

AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30. b. Respondent shall require training for all operators who are tasked to conduct sampling for compliance with the General Permit.

The personnel tasked to conduct sampling for compliance with the EPA NPDES General Permit CAG280000 were trained between April 30, 2018 and May 8, 2018. Operators work a 7 days on, 7 days off schedule thus the training was conducted over the course of two weeks to assure all affected personnel received training. Sign-in sheets for the training are included in Section F of this report.

Compliance with AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30. b. was achieved on May 8, 2018.

AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30. c. Within (30) thirty calendar days, Beta Offshore shall rewrite and implement its sampling protocol for Discharge 002 to reflect the requirements in the General Permit which states in Part II.B.5.b: "effluent limitations for oil and grease in produced water shall mean the maximum concentration allowed as measured by the average of four grab samples collected over a 24-hour period that are analyzed separately. Alternatively, one grab sample may be taken instead of four samples." Beta Offshore shall submit the new sampling protocol to EPA within (30) thirty days for review and approval.

The language in Part II.B.5.b of the NPDES General Permit CAG280000 was amended for inclusion into the sampling protocol section of Beta's in-house NPDES Manual. A copy of this manual was first submitted to EPA on March 29, 2018 and EPA recommended several minor administrative edits over the course of various emails between April 2, 2018 and May 3, 2018. All edits were incorporated and the rewritten sampling protocol was approved by EPA via email on May 3, 2018. A copy of the approved sampling protocol is included in Appendix C of the NPDES Manual as well as Section D of this report.

Compliance with AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30. c. was achieved on May 3, 2018.

AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30. d. Within (30) calendar days, Beta Offshore shall amend and resubmit the August 2016 DMR to EPA through NetDMR. In amending the August 2016 DMR, Beta shall include for Discharge 002 all values that were analyzed following the proper EPA 1664 methodology and shall not include sample results determined from analysis that deviated from EPA 1664 methodology.

The August 2016 DMR was amended and resubmitted through NetDMR on May 4, 2018. A copy of the submission is included in Section E of this report.

Compliance with AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30. d. was achieved on May 4, 2018.

AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30. e. Beta Offshore shall make the necessary changes in operations at Platforms Elly and Ellen to immediately comply with all effluent limitations in the General Permit.

Beta Offshore personnel have been trained on the monitoring, recordkeeping and reporting requirements in the EPA NPDES General Permit CAG280000. The sampling protocol has been updated and the 'to-go kits' have been prepared for proper sample collection and preservation. The changes made in operations pursuant to this AOC equip platform personnel with the necessary tools to comply with all effluent limitations in the General Permit.

Compliance with AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30. e. was achieved on April 30, 2018.

AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30. f. Beta Offshore shall label all sample bottles and have proper chain of custody documentation.

Blank sample labels and chain of custody forms with instructions have been included in each of the 'to-go kits' in the Elly Water Lab. Beta will ensure all sample bottles are properly labeled and the chain of custody is completed correctly prior to sending the samples for third party laboratory analysis. The training conducted pursuant to AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30.b. included instruction protocol for the proper use of sample labels and chain of custody processes.

Compliance with AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30.f. was achieved on April 30, 2018.

AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30. g. Beta Offshore shall preserve Discharge 002 samples in accordance with EPA Method 1664.

Beta Offshore has sample containers with preservative on hand in accordance with EPA Method 1664 for Oil and Grease analysis. The 1 liter Boston round amber glass jars have 5 milliliters of sulfuric acid added and can be found in the 'to-go kits' in the Elly Water Lab. Extra Oil and Grease sample jars are on the storage shelf in the Elly Water Lab. Beta's amended sampling instructions have a reminder to add ice to the cooler with the samples pursuant to EPA Method 1664 for proper preservation. See Section D of this report for instructions and illustration for proper procedures in accordance with Oil and Grease EPA Method 1664.

Compliance with AOC § IV. ORDER FOR COMPLIANCE ON CONSENT 30.g. was achieved April 30, 2018.

Section B. Timeline of Actions

Timeline | Beta Offshore Actions to Compliance with AOC

March 12, 2018	Beta Offshore receives EPA 'Request for Meeting' email from Mr. Colby Tucker. Conference call meeting to set up to discuss EPA's proposed action for Administrative Order on Consent (AOC).
March 13, 2018	Beta Offshore recommends phone conference at 2:15 PM PST on March 13, 2018. Call is held with Beta Offshore (Mr. Jamie Cool, Mr. Christian Zumaran, Ms. Diana Lang, and Mr. Eric Willis) and EPA (Mr. Desean Garnett and Mr. Colby Tucker). Later, Beta receives proposed language for the AOC via email from Mr. Tucker, EPA.
March 15, 2018	Beta Offshore works on response to draft AOC.
March 20, 2018	Beta Offshore provides EPA with electronic copy of letter with suggestions for minor edits to the draft AOC via email. Hard copy sent via USPS certified mail.
March 21, 2018	EPA requests a follow-up phone call to discuss proposed changes, finalize the language and answer any remaining questions. Call is set for March 29, 2018 at 1 PM PST.
March 29, 2018	Conference call with Beta/EPA to finalize language for AOC. During call, Mr. Tucker indicates that Beta's NPDES Manual and sampling instructions will require update from those he reviewed during site inspection in March 2017. After call, Ms. Lang sends Mr. Tucker a copy of the Beta Offshore 2018 NPDES Manual for field personnel for EPA review/approval. This manual was updated in 2017 after the EPA inspection and again in 2018 after phone conversations with EPA regarding sampling specifics.
April 2, 2018	Beta Offshore VP signs AOC. Original is sent via USPS certified mail to EPA and electronic copy is forwarded to Mr. Tucker via email. Mr. Tucker sends Ms. Lang comments on Beta's 2018 NPDES Manual.
April 6, 2018	Ms. Lang sends Mr. Tucker an updated NPDES Manual that incorporates the suggestions from EPA for Section III.B. Produced Water Sampling and Appendix C.
April 10, 2018	Mr. Tucker provides additional requests for edits regarding sample collection clarity and proper PPE. Ms. Lang agrees and rewrites relevant sections in the Manual according to Mr. Tucker's request.
April 11, 2018	Mr. Tucker sends an email that indicates Kathleen Johnson, EPA Region 9 Enforcement Division Director has signed the AOC agreement. He explains the key dates are May 10, 2018 to complete the training described in AOC Section IV. 30 a-g and June 11, 2018 is the date the final report is due. Ms. Lang replies to Mr. Tucker confirming understanding of deliverables and dates. Ms. Lang asks Mr. Tucker if he needs to see anything more before training commences. He replies "No. You are good to go."
April 12, 2018	Ms. Lang emails LTS Consultants regarding 3Q16 DMR correction needed prior to May 10, 2018. LTS agrees to have the change ready for submittal by early May.
April 13, 2018	Ms. Lang prepares NPDES training materials for field personnel.

April 16, 2018 — Ms. Lang takes new sampling protocols offshore to Platform Elly. Laminated copies are placed in each of three "to-go kits" that are ready in the event of an overboard discharge. Ms. Lang ensures there are (2) two bottles with proper preservative (sulfuric acid or hydrochloric acid) for the Oil and Grease analysis and (1) one bottle with nitric acid preservative for the Zinc analysis in each cooler. Sample labels and chain of custody (with instructions) are also included. Pictures are taken of NPDES sample points and of steps during Oil in Water field test and are added to training presentation. New sampling protocol is reviewed with the Elly Facilities Operator (J. Sanchez) in advance of formal training scheduled in a couple of weeks.

April 16, 2018 — EPA emails copy of signed finalized AOC to Ms. Lang. Original received by Beta's VP via certified mail.

April 17, 2018 — Ms. Lang sends email to Mr. Tucker asking if the sampling protocol for Discharge 002 has been satisfactorily rewritten during April 2-11, 2018 correspondence and specifically asks if he is providing EPA approval of the rewritten plan.

Mr. Cool provides edits to NPDES training presentation. Mr. Cool and Ms. Lang agree to provide training to Blue Crew on April 30, 2018 and Red Crew on May 7, 2018.

Ms. Lang completes copies of updated sections of 2018 NPDES Manual for the six binders on the distribution list. Copies to be distributed offshore beginning April 30, 2018.

April 19, 2018 — Outlook calendar invitations set up for April 30, 2018 (Elly Blue Crew), May 1, 2018 (Eureka Blue Crew), May 7, 2018 (Elly Red Crew), and May 8, 2018 (Eureka Red Crew).

April 20, 2018 — Mr. Tucker sends email to Ms. Lang stating, "If you have incorporated my comments sent April 10 into the sampling protocol, then yes it is good to use for training. Please send the updated version of the Manual and Appendix C when you have made these edits. In the April 10th email, I mentioned that the following points should be included the Manual and Appendix C:

- Collect the samples as soon as possible after produced water discharge occurs,
- Do not pre-rinse sample bottles,
- Wear proper PPE (perhaps a picture of gloves on the second page?)"

April 30, 2018 — Ms. Lang and Mr. Cool provide NPDES training to Elly Blue Crew on platform after 0600 safety meeting. Attendee's sign-in sheets are included in Section F of this report. Ms. Lang adds laminated labels to NPDES discharge sample locations on Ellen and Elly. Sample kits for Produced Water Discharge 002 are set up with the proper number of containers (with preservative) for collecting Oil and Grease and Zinc samples. Chain of custody forms, sample labels and Appendix C sampling guidance are in each of (3) three 'to-go kits' using igloo coolers in the Elly Water Lab (in close proximity to the Produced Water NPDES Discharge 002 sample location).

May 1, 2018 — Ms. Lang provides NPDES training to Eureka Blue Crew after 0600 safety meeting on Platform Eureka. Attendee's sign-in sheets are included in Section F of this report. Ms. Lang adds laminated labels to NPDES Discharge 005 sample location on Eureka.

May 2, 2018 — Ms. Lang replies to Mr. Tucker's email of April 20, 2018 and provides a copy of the Beta in-house NPDES Manual and Appendix C pursuant to Mr. Tucker's request.

May 3, 2018

The 3Q16 DMR amendment is calculated and prepared for EPA. The Oil and Grease for August 2016 Discharge 002 is prepared on EPA Form 3320-1 since Beta was not reporting in NetDMR until 4Q16. A cover letter to accompany the form is also prepared.

Ms. Lang calls Mr. Tucker at 9:14 AM to ask whether Jared Blumenfeld is still with EPA since original 3Q16 DMR documents were sent to Mr. Blumenfeld's attention. Mr. Tucker confirmed Mr. Blumenfeld left EPA and agreed to get back with Ms. Lang to determine who the amended 3Q16 DMR should be sent to at EPA.

Ms. Lang prepares laminated Appendix C sampling information for training class scheduled for May 7 and 8, 2018.

Mr. Tucker replies to phone call via email at 4:24 PM that the Manual and Appendix C, "satisfactorily address the 'rewriting' requirement of Section IV. Part C. of the AOC." Mr. Tucker provides guidance on how to input the 3Q16 Oil and Grease data to NetDMR. He also requests notification when the amendment is uploaded. "After you have successfully amended the data, please let me know by email. If you wish, you may also send a hardcopy letter addressed to me with the relevant information addressing Section IV Part D of the AOC—though you are still required to submit a final report indicating how Beta met each provision of the AOC. If you wish, you can inform the previous recipients of the paper DMR (e.g. BSEE) of the amendment, but you do not need to send a copy to Region 9's Regional Administrator (formerly Jared Blumenfeld, now Alexis Strauss as Acting RA)."

May 4, 2018

Ms. Lang contacts LTS Consultants with information from Mr. Tucker on how to use NetDMR to amend 3Q16 Oil and Grease data since LTS does Beta's quarterly input for NetDMR. LTS successfully uploads data. Ms. Lang reviews, certifies and submits data at 2:32 PM PST. Ms. Lang sends Mr. Tucker a follow-up email with confirmation that the data has been entered with a copy of NetDMR submission attached.

May 5, 2018

NetDMR notification email confirmation received regarding submission of 3Q16 Oil and Grease data. Pursuant to EPA NPDES General Permit CAG280000 § 1.A.6.d. email sent via NetDMR to BOEM (Susan Zaleski), BSEE (James Salmons), and CA Coastal Commission (Kate Huckelbridge for Allison Dettmer).

May 7, 2018

Ms. Lang and Mr. Cool provide NPDES training to Elly Red Crew on platform after 0600 safety meeting. Attendee's sign-in sheets are included in Section F of this report. Ms. Lang affixes sample label to Discharge 005 Ellen Omnipure sample point and to Discharge 009 Ellen East Non-Contact Cooling Water sample location.

BSEE helicopter arrives on Ellen (~10:00 AM) with inspector Quinton Hansen and James Salmons. Mr. Salmons came prepared to collect produced water samples from Discharge 002 location. Platform PIC, Paul Napoleone, informs Mr. Salmons that the platform rarely discharges produced water. The last discharge was in March 2017. Mr. Napoleone offers to collect a produced water sample going to the injection wells but Mr. Salmons declines the offer. Within a few minutes, the BSEE helicopter set off to visit DCOR's Platform Edith.

May 8, 2018

Ms. Lang provides NPDES training to Eureka Red Crew after 0600 safety meeting. Attendee's sign-in sheets are included in Section F of this report. Ms. Lang adds laminated labels to NPDES Discharge 005 and 009 sample locations on Platform Eureka.

Section C. Beta Offshore NPDES Manual

BETA FACILITY - NPDES PROCEDURES MANUAL

I. INTRODUCTION

General NPDES Permit CAG280000:

This National Pollutant Discharge Elimination System (NPDES) Procedures Manual is for Beta Platforms Elly, Ellen and Eureka. The manual summarizes various provisions of the General NPDES Permit No. **CAG280000**, including the different discharge streams authorized, limitations associated with those discharges, in-house monitoring and record-keeping, and monitoring for reporting to the Environmental Protection Agency (EPA). While discharges associated with drilling activities are typically monitored by the Drilling Department, the monitoring requirements are included here under "Drilling" for reference.

This manual will be revised as necessary upon EPA issuance of any permit modifications. This permit requires all facilities to properly operate and maintain all treatment and control systems on the Platforms used to achieve compliance with the General NPDES Permit.

Monitoring and analytical testing required by this permit must be conducted in conformance with approved Clean Water Act Procedures as provided in 40 CFR 136 and any procedures specified within the permit agreement. Monitoring measurements must be representative of the volume and nature of the waste stream prior to its discharge to the ocean. If monitoring at the **NPDES sample point or any location downstream of the last treatment unit** is conducted more frequently than required by this permit using test procedures approved under 40 CFR 136, results of such monitoring must be reported to the EPA.

Falsification, tampering with or rendering inaccurate a monitoring device used to monitor compliance is an EPA violation punishable by a fine and/or imprisonment.

Contact:

For questions regarding NPDES permit requirements or monitoring procedures, contact:

Diana Lang, HSE Manager at (562) 628-1529 or: **Cell (562) 522-5095**

Steve Lawry, LTS Environmental, Inc. (805) 644-4560 or Cell (805) 366-0746.

Listing of Authorized Discharge Streams

NPDES Permit No. CAG280000 authorizes the following discharges identified by specific serial numbers designated by EPA. The requirements for each discharge are discussed in more detail chronologically herein. The discharges are as follows:

DISCHARGE NO.	For Further Info See:	EFFLUENT STREAM
001	Section III A	Drilling Muds and Cuttings
002	Section III B	Produced Water
003	Section III C	Well Treatment, Completion, and Workover Fluids
004	Section III D	Deck Drainage
005	Section III E	Domestic and Sanitary Wastes
006	Section III G	Blowout Preventer Fluid
007	Section III G	Desalinization Unit Discharge
008	Section III F	Fire Control System Test Water
009	Section III F	Non-contact Cooling Water
010	Section III G	Ballast and Storage Displacement Water
011	Section III G	Bilge Water
012	Section III G	Boiler Blowdown
013	Section III G	Test Fluids – drilling related
014	Section III G	Diatomaceous Earth Media Filter
015	Section III G	Bulk Transfer Material Overflow
016	Section III G	Uncontaminated Water
017	Section III G	Water Flooding Discharges
018	Section III G	Laboratory Waste
019	Section III G	Excess Cement Slurry
020	Section III G	Mud, Cuttings, and Cement at Sea Floor
021	Section III G	Hydrotest Water
022	Section III G	H2S Gas Processing Waste Water

Only LISTED waste streams may be discharged - subject to permit limitations. Discharge streams 001 through 005, 008 and 009 are discussed individually in Section III. Streams 006, 007 and 010 through 022 are discussed as a combined category called Other Discharges (Section III G).

Historical Background Information on the CAG280000 Permit

The NPDES Permit allows specific discharges from all California OCS platforms under various monitoring conditions and effluent limits. The current General NPDES Permit CAG280000 was re-issued on March 1, 2014 and includes revised Permit Appendixes B and C which list new platform-specific effluent limits and monitoring requirements for each platform.

EPA re-accessed recent monitoring data and found that the only pollutant with reasonable potential to exceed the EPA Water Quality Criteria from the Beta platforms was zinc from produced water at Platform Elly. The modified General Permit requires Platform Elly to monitor for zinc once per year, but only if there are produced water discharges, (in which case oil and grease testing would also be required). There is no longer a permit limit established for zinc. EPA also found that chlorine used in cooling water showed the potential to exceed water quality criteria and therefore initiated new effluent limits and monitoring for chlorine. All three platforms are required to monitor chlorine residuals by an EPA test method in the non-contact cooling water on a quarterly basis. (There are no fire water chlorine requirements).

As outlined in the table below (Section II), Operations has been advised to run daily chlorine tests using a non-EPA test procedure on both fire water and non-contact cooling water. This is done to track chlorine usage and help track the concentration as necessary to avoid any exceedances or environmental harm related to their discharges.

II. MONITORING AND DOCUMENTATION OVERVIEW

Daily Monitoring

Operations is responsible for daily and monthly monitoring and documentation of discharges from Platforms Ellen, Elly and Eureka. This includes all NPDES discharges discussed herein. In addition, routine and non-routine use of chemicals associated with the produced water treatment system and all other NPDES discharge must be logged for in-house record keeping purposes.

Visual Observations

Operations is responsible for conducting daily visual observations for the presence / absence of visible sheen and floating solids or foam in the receiving water. Onboard personnel perform these visual observations routinely throughout the day of the waters adjacent to and in the vicinity of the platforms. Results of these observations must be logged on the platform "Daily" report form (Morning Reports) for the following discharges from Platforms Ellen, Elly and Eureka. Such observations shall be recorded in the "pollution check" section of the form.

- Sanitary & Domestic Waste (005) - floating solids only
- Deck Drainage (004) - free oil sheen only
- Fire Control System Test Water (008)
- Well Treatment Fluids (003)
- Non-Contact Cooling Water (009)
- Misc. Discharges (006, 007, 010-022)

If routine visual check of system conditions shows any potential problems with the waste water treatment system, the Operations Supervisor should be notified and steps should be taken as soon as possible to correct the problem. **Any sheen, foam or floating solids as a result of one of the above discharges could be an exceedance and must be reported within 24 hours to your HSE Manager who will then notify EPA accordingly.**

Discharge Monitoring and Documentation

If any of the categories below are actively being discharged, the following characteristics are to be recorded on the daily recording forms associated with the NPDES Waste Water Discharge Monthly Reports (Month-End Worksheets - Appendix B):

Waste Being Discharged	Discharge Characteristic	Monitoring Method	Monitoring Frequency	Documentation Form
Drilling Muds and Cuttings	Flow Rate (bbls/day) Other Parameters	Estimate See Drilling Rpt.Form	Daily As Specified	Monthly Drilling Report Form
Produced Water	Flow Rate (bbls/day) Oil & Grease (EPA) Oil & Grease (in-house) Zinc	Estimate Sample sent to Lab Spectrophotometer Sample sent to Lab	Daily Weekly Daily Quarterly	Form O&G 3rd Party Lab Report Form O&G 3rd Party Lab Report
Sanitary/Domestic Waste	Flow Rate (bbls/day) Residual Chlorine	Estimate Colormetric Test Kit	Daily Daily	Omnipure Log Omnipure Log
Well Treatment Fluids	Flow Rate (bbls/day)	Estimate	Daily	NPDES I Form
Deck Drainage	Volume (bbls/mo.)	Estimate	Daily	NPDES II Form
Non-Contact Cooling Water	Volume (bbls/mo.) Residual Chlorine	Estimate Colormetric Test Kit	Daily Daily	NPDES II Form NPDES II Form
Fire Control System Test Water	Volume (bbls/mo.) Residual Chlorine	Estimate Colormetric Test Kit	Daily Daily	NPDES II Form NPDES II Form

Note: Residual Chlorine must be monitored when actively chlorinating. Although there are no limits listed for fire water, in-house chlorine monitoring is recommended.

Details regarding the procedures for each discharge category are presented in Section III of this manual. Note that any discharges that are NOT actively occurring must still be documented monthly as not occurring (see Month-End Reporting below).

Month-End Reporting

The Month-End reporting document is located in the electronic NPDES folder and an example is provided in Appendix B. The Month-End Summary form summarizes discharges for the month. Daily discharge volumes and daily in-house chlorine monitoring results are to be documented on the associated forms (separate tabs on the Month-End Excel document) labeled NPDES I, NPDES II and Oil & Grease, or in the case of Sanitary discharge, on the Operator Omnipure Log Forms in the electronic NPDES folder. Examples of all of these forms are in Appendix B.

III. ROUTINE DISCHARGE PROCEDURES AND REQUIREMENTS

Discharge-Specific Procedures and Requirements

A . Drilling Fluids and Cuttings (001):

Prior to any drilling activities, contact the HSE Manager to review the monitoring requirements.

As listed in the permit, Drilling Fluids and Cuttings are allowed to be discharged to the ocean as long as there is no sheen, and the discharge meets a variety of prohibition requirements. Drilling personnel are required to maintain a detailed monitoring report listing the volumes discharged each day, pollution observations, toxicity sampling, mud inventories, and metals analysis of the barite. See Appendix A for the appropriate form (Monthly NPDES Drilling Report). Fluids and cuttings shall each be reported separately. This documentation needs to be included in the monthly NPDES information package that is sent in to the Environmental group at the end of each month.

Drilling muds that contain waste engine oil, cooling oil, gear oil, diesel oil or lubricants that were previously used for purposes other than borehole lubrication are strictly prohibited. Compliance with this restriction shall be demonstrated through a drilling fluids inventory and drilling personnel certification.

B. Produced Water (002):

Platform Eureka: There are currently no produced water discharges at Eureka. If there are ever any discharges of produced water at Eureka, they must comply with all requirements discussed for Platform Elly below:

Platform Ellen: There are currently no produced water discharges at Ellen. All production fluids generated at Ellen are sent to Elly for processing. If there are ever any discharges of produced water at Ellen, they must comply with all requirements discussed below:

Platform Elly: The produced water treatment system on Elly treats all produced fluids from Ellen. After 3 phase separation, the produced water is treated through a Flotation Cell (Wemco), mixed media sand filtration and then sent to a surge tank prior to injection back into the formation. Occasionally, under non-routine circumstances, produced water is discharged to the ocean. When and if produced water is discharged to the ocean, operators must collect samples of the discharge and contact Positive Lab Service (213) 745-5312 or another EPA-approved lab for sample transport and analysis. Pre-assembled sample containers, coolers, chain-of-custody forms and instructions are located in the test lab.

Monitoring and Sampling Procedures for Produced Water Discharges:

Notify

The Operator should promptly notify the Platform Person in Charge (PIC) and the HSE Manager when there is a produced water discharge.

Collect Samples

Elly Facility Operators shall collect samples of produced water effluent to verify compliance with NPDES permit limits for Oil & Grease and Zinc. The NPDES sampling point for produced water is downstream of the last vessel prior to entry into the ocean via the Emergency Sump (Filtered Produced Water Tank – SO3 outlet). PPE: Wear safety glasses and chemically resistant gloves while collecting samples. The containers have a small volume hazardous preservative (sulfuric, nitric, or hydrochloric acid) which are required per the sample methods. Do NOT overfill the containers! Use care when filling.

- **For discharges less than 6 hours in duration, collect 3 sample jars of effluent**
  - Two (**2**) samples for oil and grease analysis[1] according to EPA Method 1664 §8.1 using 1 liter glass jar with preservative (HCl or H_2SO_4)
  - One (**1**) sample for zinc analysis according to EPA Method 200.8 using a 500 ml poly container with preservative (HNO_3). One sample annually.

  Note: Jars with proper acid preservative for NPDES sampling are acquired from the 3rd party laboratory. These containers are in the Elly Water Lab and in the coolers ready for sampling.

- **For discharges 6 hours or more in duration, collect 1 additional sample for oil and grease every 6 hours**
  - In the first 6 hours of a produced water discharge, collect two (2) samples for oil and grease analysis using 1 liter glass jar with preservative (HCl or H_2SO_4), and
  - One (1) sample for zinc analysis using a 500 ml poly container with preservative (HNO_3).
  - After 6 hours of continuous discharge, collect one additional sample for oil and grease and another every 6 hours thereafter or until discharge stops. No additional zinc samples are required. Collect one additional sample for oil and grease every 6 hours for a total of 4 samples in 24 hours.
  - Under continuous discharges for more than one week, conduct Oil & Grease sampling weekly.

After Samples Are Collected

All samples collected must be clearly labeled and placed in the supplied cooler. Allow glass containers to cool to less than 80°F before icing. Prior to shipping ashore, add ice so the temperature is <6° C during transport to the lab.

Fill out a detailed Chain of Custody form for all samples collected. Contact Diana Lang for lab submittal and other shipping details. (Refer to pg.17)

[1] One sample and one duplicate sample for oil and grease analysis will be submitted simultaneously to the lab. The duplicate sample will be analyzed at the lab's discretion in the event of QC failure during analysis of first sample as per EPA Method 1664 §8.1.

Recordkeeping

- The Elly Facility Operator or Elly Control Room Operator must prepare a write-up documenting the reason for discharge, start and stop time, estimated released volume and other pertinent information.
- For a Produced Water Discharge lasting 6 hours or longer, document the daily flow rate on the form provided with the month-end reporting worksheet in barrels of water per day (BWD). Also report the monthly average based on the total volume discharged.

Permit Limits of Produced Water Discharge 002

- The daily maximum limit for oil and grease concentration is 42 ppm in produced water discharged to the emergency sump.

- The monthly average maximum limit (based on four weeks) is 29 ppm.

Permit Language from page 19 of 2014 General Permit CAG280000: Effluent limitations for oil and grease in produced water shall mean the maximum concentration allowed as measured by the average of four grab samples collected over a 24-hour period that are analysed separately. Alternatively, one grab sample may be taken instead of four samples. If only one grab sample is taken for any one week, it must meet the maximum for any one day limit.

Additional Produced Water Monitoring - Toxicity: Toxicity monitoring is required to continue for the duration of the permit if discharging. Two quarterly samples have been collected as of 2015 (during the summer and winter). Quarterly sampling is still required for two more quarters (Spring and Fall) if there are any discharges. Then the sampling will be reduced to once per year on the 5th quarter to cover all four seasons until the permit expires in March 2019. This is a screening toxicity test that will include 3 different species. Species and test concentrations are dependent on dilution and the Environmental Department will handle the details of these analyses. For toxicity monitoring, a composite sample should be collected as follows: No fewer than eight individual samples are collected at equal intervals for 24 hours or for the duration of the discharge, whichever is shorter. In the case where there is a brief discharge of produced water and a toxicity sample was not collected, a single grab sample will be collected as soon as the lab is notified to prepare the test species. In this case, the Environmental Department will arrange this testing.

If any of the toxicity results exceed the limits (applied after dilution), accelerated testing is required. This will involve 6 additional toxicity samples at 3-week intervals as well as a detailed study to identify the cause of the toxicity and steps that will be taken to eliminate the toxicity. Processes to be reviewed that may contribute to toxicity are chemical over treat or chemical changes, process changes, new wells, well work over fluids and any other sources of toxic compounds. This is applicable if Platform Elly continues to discharge.

Produced Water Non-EPA (in-house) Oil & Grease Tracking: Daily oil in water readings are performed by Elly facility operators to monitor and record produced water quality in the various stages of oil/water separation prior to injection in the wells. The oil in water method is an in-house field test that is similar in order of magnitude relative to oil and grease concentration. When discharging Produced Water, in order to assist platform personnel in tracking oil and grease (O&G) levels in the produced water effluent, regular O&G readings are recommended every 6 hours during discharging. A spectrophotometer analysis is a non-EPA approved analytical method for oil and grease (oil in water) and is not reportable to the EPA (test instructions are posted in the lab). Results of these in-house readings are logged on the Oil & Grease daily report form located with the Month-End worksheet. It should be noted that the accuracy of these readings may be plus or minus 20%, but it should give Operations an idea on the water quality.

When discharging, the Platform production water treatment system must be operated to not exceed the daily maximum effluent oil and grease concentration of 42 mg/l (ppm) with a monthly average not to exceed 29 ppm. Spectrophotometer readings that exceed the 42 mg/l daily limit indicate abnormal system conditions and corrective actions must be implemented as soon as possible. Operations should always notify the HSE Manager if this occurs and inform us of the corrective steps that were taken to clean up the waste stream.

C. Well Treatment, Completion and Workover Fluids (003): (Note: If these fluids are commingled with produced water the following doesn't apply. Instead the requirements for produced water apply). If discharged separately:

- Record the number of Jobs performed each month
- Record discharge volume in total barrels per job
- Perform static sheen test (40 CFR procedure)
- Oil and grease limit (29 monthly avg. / Daily maximum of 42 ppm)

D. Deck Drainage (004): Deck drains (including rain) can be discharged to the ocean as long as they don't cause a sheen, foam or floating solids in the receiving water. Volumes discharged are also required to be reported. Currently deck drains are commingled with production and injected. If deck drains are ever considered for ocean discharge, contact your HSE Manager prior to discharging so we can arrange the necessary monitoring requirements.

E. Marine Sanitation Devices (MSD; 005): Platforms Ellen and Eureka have marine sanitation devices that comply with pollution control standards and regulations under Section 312 of the Clean Water Act. As long as the device is being properly operated as a United States Coast Guard approved device, official EPA test methods for chlorine is not required.

In order to ensure that the marine sanitation device is functioning correctly, platform operations personnel should test daily for residual chlorine using a non-EPA approved test method such as a Colorimetric test. The sanitation device

should be operated such that a 2-5 ppm residual chlorine level is maintained in the sanitary waste water discharge. Total residual chlorine test results must be logged on the Omnipure Daily Log Form (and daily Morning Report). Never allow the chlorine levels to drop below 1 ppm or exceed 10 ppm. Note: An annual inspection of the MSD is also required. Additionally, log the pollution check sheet to show receiving water had no floating solids as a result of the discharge.

F. Fire Water System Test Water (008) and Non-Contact Cooling Water (009): The volume of non-contact cooling water discharged is determined by using the pump curves for the pumps that are running each day (the values have been determined and are pre-printed on the month-end forms). Observe the ocean water near the discharge point each day for sheens, foam or floating solids. If chlorine is used for biofilm control for either the fire water or the non-contact cooling water, daily chlorine readings using a non-EPA chlorine test is recommended. The target range is 0.2-0.5 ppm Cl_2. The daily results should be documented on the "NPDES II" form attached to the Month-End Worksheet.

G. Other Discharges (006, 007, 010-022) and other Monitoring Requirements

Discharge	Discharge Limitation	Monitoring Requirement	Monitored By
Misc. Discharges (006, 007, 010-022):	No sheen, foam or floating solids in receiving water (ocean)	Daily	Operations
Surfactants, Dispersants, Detergents	Minimize, except as necessary to comply with OSHA/BOEMRE requirements	As Needed	Operations
Solids, sludges, Filter backwash / residues (removed during waste water treatment)	No Discharge	As Needed	Operations
Halogenated Phenolic Compounds	No Discharge	As Needed	Operations

Record Keeping

All Daily and Monthly reporting forms (contained within NPDES Month-End Worksheets) and lab data must be kept on file and accessible on the platforms for a period of at least **three (3) years** from the date of the report. This includes calibration and maintenance records used to verify proper operation of the treatment processes.

In-House Reporting

Summaries of all NPDES monitoring activities as discussed above must be reported on a monthly basis to the HSE Manager. Use the NPDES Month-End Worksheets and attachments and Omnipure Log Forms.

EPA Quarterly Reporting

The results of monthly monitoring are submitted by the HSE Manager to EPA on a quarterly basis in the form of Discharge Monitoring Reports (DMRs). Due dates for the DMRs are January 28, April 28, July 28 and October 28 of each year. Copies of the DMRs are accessible in the electronic NPDES folder on the J Drive and hard copies are kept in the Corporate Office. The Corporate Office also maintains records of all correspondence with the EPA.

IV. NON-ROUTINE DISCHARGE PROCEDURES AND REQUIREMENTS

Upsets, Bypasses, Water System Alterations, Chemical Spills and 24-hr Notifications (Reporting of Non-Compliance)

Upsets

This discussion applies only when EPA-approved monitoring analysis shows non-compliance. System conditions that may indicate an upset and that occur between official EPA monitoring periods are not reportable to the EPA, but should be evaluated and corrected as soon as possible. Violations of permit limits may be excused by the EPA if they were caused by a confirmed upset.

Definition - "Upset" means an exceptional incident where there is unintentional and temporary non-compliance because of factors beyond the reasonable control of the permittee. An upset does not include excessive pollutant concentrations caused by careless or improper operation.

Procedures

EPA Notification:

- The HSE Manager will notify the EPA within 24 hours of receiving lab results indicating an upset condition which exceeds effluent limitations. The Operations Supervisor needs to supply information to your HSE Manager whenever an NPDES Exceedance is known to have been the cause of an upset.

- The HSE Manager will submit a written report to the EPA within 5 days of the time the upset is noted. The written report shall contain a description of the non-compliance incident and its cause, including dates and times, and, if the non-compliance situation has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance.

In-House Reporting:

- Operations Supervisor will submit a written letter detailing the cause of the upset and corrective steps toward future prevention to the HSE Manager.

Bypasses

Definition - "Bypass" means any diversion of waste streams from any portion of treatment facility. Partially treated water is therefore discharged. A bypass is allowed if it does not cause effluent limitations to be exceeded and the bypass is for essential maintenance to assure efficient operation. A bypass that causes effluent limitations to be exceeded is subject to EPA enforcement action unless:

a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. Severe property damage does not mean economic loss caused by delays in production.

b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime; and

c) Advance notice is given to the EPA, 10 days prior to an anticipated bypass. The EPA is informed within 24 hours of an unanticipated bypass.

Procedures

EPA Notification:

- The HSE Manager may notify the EPA of an anticipated bypass which may cause effluent limitations to be exceeded. Written notification will be made 10 days prior to the date of the bypass. The written report shall contain an explanation of the necessity for a bypass, an explanation as to why no alternatives to a bypass exist, and the estimated amount by which effluent limitations will be exceeded during the bypass. For the 10 day notification deadline, the Operations Supervisor should send a bypass notice of an anticipated bypass to the HSE Manager 20 days prior to any bypass (refer to the Report of Bypass Form in Appendix A).

- The platform Operations Supervisor will notify the HSE Manager, within 24 hours, of an unanticipated bypass which may cause effluent limitations to be exceeded. The HSE Manager will supply information to the EPA summarized on a "Report of Bypass" form as requested by the EPA within 24 hours.

- **24 hour EPA reporting is required for any non-compliance which may have endangered health or the environment. This can also be defined as any monitoring results that exceeded any discharge limitations listed in the permit.**

- The HSE Manager will submit a written report of an unanticipated bypass to the EPA within 5 days of the time the circumstances are noted. The written submission shall contain a description of the non-compliance incident and its cause; the period of non-compliance, including dates and times, and, if the non-compliance situation has not been corrected, the anticipated time it is expected to continue; and steps

taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance.

In-House Reporting:

- The platform Operations Supervisor must inform the HSE Manager 20 days prior to an anticipated bypass.

- Operations Supervisors will submit copies of a completed Report of Bypass to the HSE Manager within four (4) days, in the event of an unanticipated bypass.

Water Treatment System Alterations/Changes:

The treatment system of each platform (although undefined in the permit itself) consists of production phase separation vessels, and water clarification vessels. If produced water is to be discharged and if there are to be any mechanical changes to the water treatment process in any way, you must first consult with your HSE Manager. Also refer to bypasses if appropriate. These system modification requirements apply to all NPDES discharges.

Non-Routine Monitoring: Chemical Spills

Produced Water Treatment System

Large volume (greater than one gallon) unanticipated spills of chemicals to the open (flat) deck drain system must be contained within the sump system to prevent discharge to the ocean. Sump contents should then be hauled to shore or if valid, used as a treatment product in the production system. In the event of a large volume spill of chemicals to the open (flat) deck drain system, a Spill Report must be filled out according to chemical spill guidelines. The spill must be reported to your Environmental Supervisor. Agency notification must be made within 24 hours to the EPA and National Response Center (NRC) if Clean Water Act (CWA) or Comprehensive Environmental Response Compensation and Liability Act (CERCLA) reportable quantities are exceeded (see Chemical Spill Guidelines on file on the platform).

Routine or anticipated (deliberate) discharges of chemicals of any kind to the open (flat) deck drain system are not authorized by this permit. Accidental discharges of chemicals (other than produced water treatment chemicals) to the closed (high) production drain system are not permitted. Attempts must be made by operations to eliminate the possibility of such releases from occurring. The HSE Manager must be notified immediately if a large volume, accidental discharge of chemicals to the closed (high) drain system occurs. Routine or anticipated (deliberate) discharges of non-produced water treatment chemicals to the closed (high) drain system are not authorized by this permit.

Twenty-Four Hour Reporting on Non-Compliance to EPA

The HSE Manager will notify the EPA orally within 24 hours of becoming aware of the following non-compliance situations:

1. An unanticipated bypass which exceeds any permitted effluent limitation.

2. An upset which exceeds any permitted effluent limitation.

3 . After allowing for the appropriate dilution in the receiving water, a violation of a maximum daily discharge limitation for any pollutant, listed in the permit is deemed a violation of a toxic pollutant standard. A dilution factor is not allowed for O&G.

4. O&G 24 hour composite or a single grab sample exceeds a 42 mg/l (ppm) daily maximum or a monthly average of 29 mg/l using EPA test methods.

5. Any observation of a sheen, foam or floating solids as a result of an NPDES discharge (except for a sheen as a result of produced water since produced water is covered under O&G). If a sheen is suspected as a result of produced water, an oil and grease test should be performed.

6. Chlorine in the Sanitary effluent less than 1 mg/l or greater than 10 mg/l and cooling or fire water chlorine over 0.5 ppm end of pipe (HSE manager will determine post dilution exceedances for non-contact cooling water).

V. SAMPLING GUIDELINES AND RESPONSIBILITIES

In-House Sampling Restrictions (for Non-Reportable Monitoring)

Samples collected by Operations for purposes of checking produced water treatment system conditions cannot be taken at the NPDES sample point if EPA – approved analytical tests will be run on the samples, unless you intend to report it to EPA. Instead, Non-reportable samples can be collected upstream of the last treatment vessel for in-house water quality monitoring needs or you must use a non-EPA approved test method at the NPDES sample point.

Vendor Sampling Requirements / Restrictions

Samples collected by vendors for purposes of checking produced water treatment system conditions must be recorded by operations personnel (sample date, time, and location). Vendor samples must not be collected at the NPDES sample point if EPA approved analytical tests will be run on the samples. If they are, they must be reported to the EPA in the appropriate monthly, quarterly or annual Discharge Monitoring Report (DMR).

Agency Sampling Requirements – EPA / BSEE Sample Kits:

Site Inspections or samples can be collected by the EPA or BSEE from the NPDES sample point at any time. When this is done Operations are advised to collect duplicate samples alongside the agency. Include sample date, time, location, and purpose. The appropriate clean container must be used for the sample and they can be obtained from the NPDES sample kit stored in the lab at Elly. The same sample collection / preservation / handling techniques used by the agency must also be used by Operations personnel. After collection, the extra sample must be maintained at 4^{o}C, (sample placed on ice) and retained on the platform and arranged for pick-up. A state certified lab must be notified to arrange the pick-up. Notify your HSE Manager should this occur.

Caution: Most of the sample containers contain chemical preservatives such as caustics or acids. Review the MSDS sheets and sampling instructions that are included in the BSEE sample kits prior to filling any containers. Use proper PPE (i.e. safety goggles and gloves).

NPDES Sample Handling Procedures

Samples turned over to the laboratory for analysis must be handled properly with the appropriate paper work completed. If BSEE or EPA collects samples, and Operations collects duplicates, please perform the following procedures (refer to Appendix C herein and Appendix B of the permit for more sampling details):

- Don't over fill the samples, tightly cap the containers and label according to date, time of sample collection, and sample type (i.e., oil & grease grab). Remember,

these containers contain acids and caustics so extreme caution is advised. Use proper PPE. Use glass containers for O&G and plastic for metals.

- Chain-of-Custody Forms - The following information must be provided on each chain-of-custody form for any type of analysis to be conducted. Copies of chain-of-custody forms must be returned with the samples. (Refer to Appendix D for a copy of the Chain-of-Custody form). Much of the information needed on the Chain-of-Custody has been preprinted. Sampler's name, and date & time of collection need to be filled in.

    - Facility
    - Date and time(s) of sampling.
    - Sample point location (i.e., NPDES T-31).
    - Type of sample (grab or composite) and sample volume.
    - Preservation method.
    - Name (not initials) of person taking sample.
    - Analysis to be performed and analysis method (EPA or Standard Methods).
    - System conditions when sample was collected.
    - Laboratory performing analysis must be certified by California Department of Health Services
    - Date and time sample(s) submitted to laboratory.
    - Name and signature of representative relinquishing the sample.
    - Name and signature of laboratory employee receiving the samples.
    - Requested turn-around time from laboratory for results. The platform telephone number must be provided for 24-hour (“rush”) samples.
    - Company contact name and phone number.
    - Company contacts to whom copies of lab reports should be sent. Always include HSE Manager.

- Maintain sample at 4^{o}C by placing ice in the cooler. IMPORTANT: cool glass containers prior to icing to avoid shattering the glass due to extreme temperature changes (this is required for hot produced water specifically).

- Notify an approved laboratory for proper sample submittal or call your HSE Manager for assistance. Positive Lab Service is the laboratory typically used for oil & grease and the required annual zinc analysis.

List of Commonly-Used Laboratories

- Positive Lab Services. (For Oil & Grease - EPA Method 1664 and Zinc - EPA Method 200.8)
  781 E. Washington Blvd,
  Los Angeles, CA 90021
  (213) 745-5312

- Aquatic Bioassay & Consulting (Toxicity Testing)
  29 North Olive Street
  Ventura, CA 93301 (805) 643-5621

Documentation

- Maintain copies of chain-of-custody forms until such time as the corresponding laboratory report is received from the lab. All lab reports will be sent to the platforms for your NPDES files (this is a requirement of each platform and may be requested by EPA/BSEE during inspections).

- Maintain files of all NPDES sample lab reports and corresponding chain-of-custody forms for a minimum of three years.

- If an analytical result exceeds a permit limitation, or close to an exceedance, your HSE Manager will notify the Operations Supervisor of the lab result and recommend a course of action.

CAG280000 – April 2018

Section D. Beta Offshore Sampling Protocol

Monitoring and Sampling Procedures for Produced Water Discharges

Notify

The Operator should promptly notify the Platform Person in Charge (PIC) and the HSE Manager when there is a produced water discharge.

Collect Samples

Elly Facility Operators shall collect samples of produced water effluent to verify compliance with NPDES permit limits for Oil & Grease and Zinc. The NPDES sampling point for produced water is downstream of the last vessel prior to entry into the ocean via the Emergency Sump (Filtered Produced Water Tank – SO3 outlet).

- **For discharges less than 6 hours in duration, collect 3 sample jars of effluent**
  - Two (**2**) samples for oil and grease analysis[1] according to EPA Method 1664 §8.1 using 1 liter glass jar with preservative (HCl or H_2SO_4)
  - One (**1**) sample for zinc analysis according to EPA Method 200.8 using a 500 ml poly container with preservative (HNO_3). One sample annually.

    Note: Jars with proper acid preservative for NPDES sampling are acquired from the 3rd party laboratory. These containers are in the Elly Water Lab and in the coolers ready for sampling.

- **For discharges 6 hours or more in duration, collect 1 additional sample for oil and grease every 6 hours**
  - In the first 6 hours of a produced water discharge, collect two (2) samples for oil and grease analysis using 1 liter glass jar with preservative (HCl or H_2SO_4), and
  - One (1) sample for zinc analysis using a 500 ml poly container with preservative (HNO_3).
  - After 6 hours of continuous discharge, collect one additional sample for oil and grease and another every 6 hours thereafter or until discharge stops. No additional zinc samples are required. Collect one additional sample for oil and grease every 6 hours for a total of 4 samples in 24 hours.
  - Under continuous discharges for more than one week, conduct Oil & Grease sampling weekly.

After Samples Are Collected

All samples collected must be clearly labeled and placed in the supplied cooler. Allow glass containers to cool to less than 80°F before icing. Prior to shipping ashore, add ice so the temperature is <6° C during transport to the lab.

Fill out a detailed Chain of Custody form for all samples collected. Contact Diana Lang for lab submittal and other shipping details. (Refer to pg.17)

Recordkeeping

1. The Elly Facility Operator or Elly Control Room Operator must prepare a write-up documenting the reason for discharge, start and stop time, estimated released volume and other pertinent information.
2. For a Produced Water Discharge lasting 6 hours or longer, document the daily flow rate on the form provided with the month-end reporting worksheet in barrels of water per day (BWD). Also report the monthly average based on the total volume discharged.

Overboard Sampling Instructions

Sample last point before Emergency Sump discharge. Collect the first sample set as soon as possible after produced water discharge occurs. **Do not pre-rinse bottles.**

Purge sample point 1-2 full minutes before filling bottles. Do not overfill

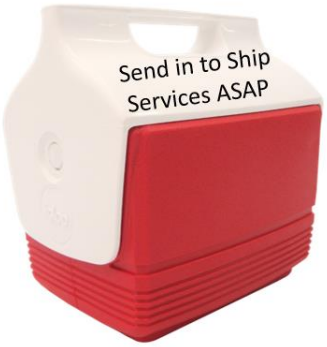
Wear your PPE!

Collect **2** of these

Oil and Grease test

And **1** of these!

Metals test for Zinc



Add ice to chill samples

Please notify Diana or Jazmin that samples are being shipped in.

Fill out a chain of custody form to accompany the samples.

Beta OFFSHORE

CHAIN OF CUSTODY RECORD

Unit Location	Beta Offshore
Address	111 W. Ocean Blvd. Suite 1240
City, State, Zip	Long Beach, CA 90802
Collector's Name	
(Area) Telephone Number	

LOG NUMBER

48 hr RUSH

Sample Number	Date Sampled	Time Sampled	Type: Composite or Grab	Sample Identification	Number of Containers	ANALYSIS REQUIRED: Oil & Grease - EPA 1664	Zinc - EPA 200.8					Remarks
1			G	NPDES Produced Water	3	X	X					

*Caution to Sample Collector: all sample bottles contain a concentrated **acid** preservative. Follow all procedures outlined in your NPDES manual and use proper PPE when collecting the samples.*

	SIGNATURE	COMPANY	DATE	TIME
Relinquished By				
Received By				
Relinquished By				
Received By				
Relinquished By				
Received By				

Put your name and date/time sampled in yellow boxes.

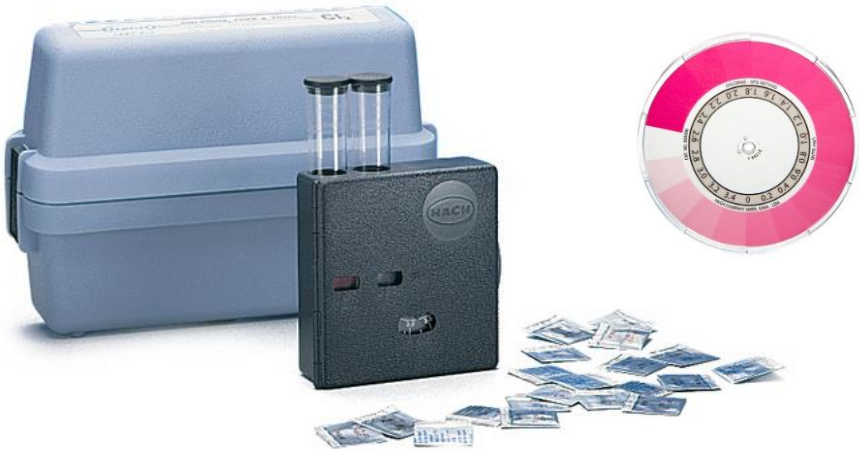
Sign at bottom.

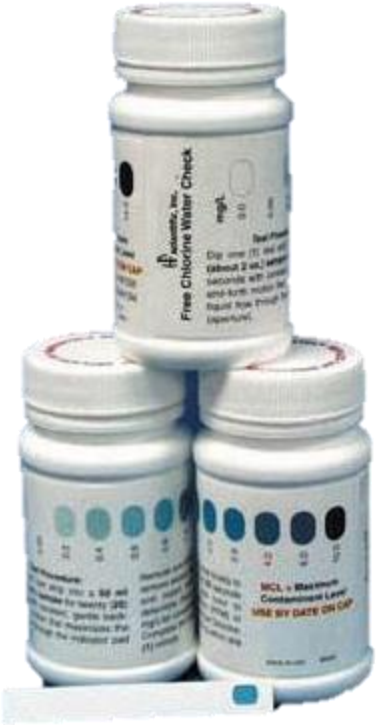
Chlorine Field Tests

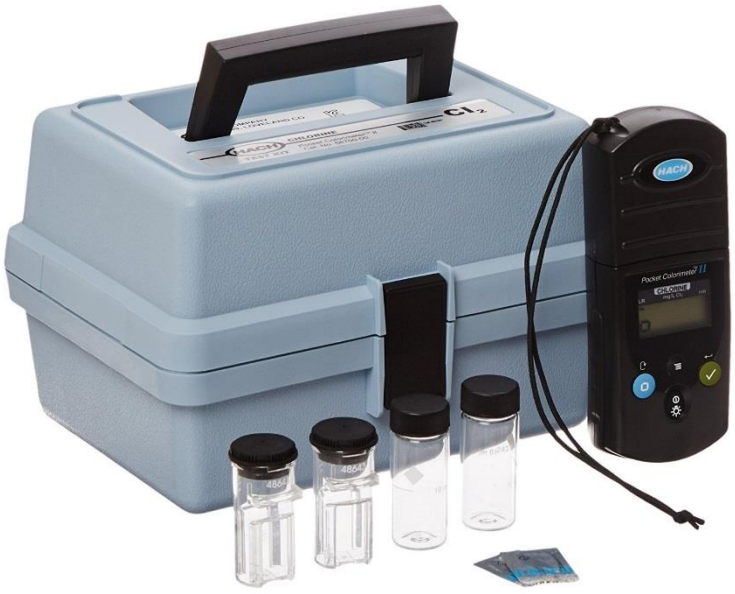
There are several field test methods for monitoring the Omnipure effluent and the non-contact cooling water effluent.

Omnipure should be in the 1-10 ppm chlorine range

Non-contact cooling water should be in the 0.1 to 1 ppm chlorine range – ideally at 0.4 to 0.5 ppm.







Section E. August 2016 DMR Amendment

DMR Copy of Record

Permit

Permit #:	**CAF001148**	**Permittee:**	BETA OFFSHORE PLATFORM ELLY - CAG280000	**Facility:**	PLATFORM ELLY
Major:	No	**Permittee Address:**	111 West Ocean Blvd., Suite 1240 LONG BEACH, CA 90802	**Facility Location:**	LAT 33.583403 LO -118.127089 PACIFIC OCEAN, CA 90802
Permitted Feature:	002A External Outfall	**Discharge:**	**002A-A** Produced Water Monthly		

Report Dates & Status

Monitoring Period:	**From 08/01/16 to 08/31/16**	**DMR Due Date:**	**10/28/16**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

1. Produced water annual cumulative flow from March 1st thru Feb 28th each year 2. Values listed in the DMR for zinc are post dilution including the limits.

Principal Executive Officer

First Name:		**Title:**		**Telephone:**	
Last Name:					

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
X 00552	Oil and grease, hexane extr method	1 - Effluent Gross	0	--	Sample								=	70833	=	86000	19 - mg/L		01/07 - Weekly	GR - GRAB
					Permit Req.								<=	29 MO AVG	<=	42 DAILY MX	19 - mg/L	1	01/07 - Weekly	GR - GRAB
					Value NODI															
82600	Produced water, flow	1 - Effluent Gross	0	--	Sample	=	197			1T - bbl/d									01/01 - Daily	ES - ESTIMA
					Permit Req.		Req Mon MO AVG			1T - bbl/d								0	01/01 - Daily	ES - ESTIMA
					Value NODI															
82600	Produced water, flow	O - See Comments	0	--	Sample			=	197	BY - bbl/yr									01/YR - Annual	CA - CALCTD
					Permit Req.			<=	10950000 YTD TOT	BY - bbl/yr								0	01/YR - Annual	CA - CALCTD
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

Parameter		Monitoring Location	Field	Type	Description	Acknowledge
Code	Name					
00552	Oil and grease, hexane extr method	1 - Effluent Gross	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
00552	Oil and grease, hexane extr method	1 - Effluent Gross	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes

Comments

1. Produced water annual cumulative flow is from March 1 through February 28 each year. 2. Oil and grease sampling is weekly during discharges. 3. WTCWF, Deck Draining, Domestic Waste & Fire Control Water are commingled with production & processed at Plt. Elly. 4. Refer to amended cover letter. This is an amended DMR to the one submitted in October 2016.

Attachments

Name	Type	Size
Att1BetaDMRCoverLetterJuly-Sept16amended.pdf	pdf	42950

Report Last Saved By

BETA OFFSHORE PLATFORM ELLY - CAG280000

User:	dlang@memorialpp.com
Name:	Diana Lang
E-Mail:	dlang@memorialpp.com
Date/Time:	2018-05-04 14:30 (Time Zone: -07:00)

Report Last Signed By

User:	dlang@memorialpp.com
Name:	Diana Lang
E-Mail:	dlang@memorialpp.com
Date/Time:	2018-05-04 14:31 (Time Zone: -07:00)

Diana Lang

From: netdmr-notification@epa.gov
Sent: Saturday, May 05, 2018 5:33 AM
To: m.lawrylts@yahoo.com; Susan.Zaleski@boem.gov; james.salmons@bsee.gov; Kate.Huckelbridge@coastal.ca.gov; Diana Lang
Subject: NetDMR DMR(s) Submittal Processed with Warnings or Errors for: CAF001148

The following signed 1 DMR(s) were submitted to EPA. All of the DMRs in the submission are listed. If a DMR had warnings and/or errors, the details are included below.

CDX Transaction ID: _b655aa0a-18d3-435e-a2c6-c5265391e137
User ID: dlang@memorialpp.com
Timestamp: 05/04/2018 17:31:18

Permitted Facility Name: PLATFORM ELLY
Permit ID: CAF001148
Permitted Feature: 002A
Discharge: A - Produced Water Monthly
Monitoring Period End Date: 08/31/16
There are 1 warnings and/or errors present and all are shown below:
1. Warning - Warning: the following Numeric Condition Quantity(ies) has a Percent Exceedence of greater than 500%: C2 C3

Thank you.

This message was sent from EPA Region 09 - AS-AZ-CA-GU-MP-MW-NN NetDMR Production Environment.

Section F. Training Documentation

Training Course Registration

Course Title: NPDES Training 2018 **Course Code:** NPDES 2018 **Today's Date:** 4-30-18

Location: Beta-Platform Ellen/Elly **Instructor:** Diana Lang **Course Length:** 1 hour

	Employee #	Attendee's Name			Work Location	Phone #	Supervisor
		Last Name	First Name	Initial			
1	NA					N/A	
2		Daniel Pasillas		DP	Elly		ED R
3		~~[illegible]~~ Lopez	DARIN	DCL	Ellen/Elly/Eur		Ed R.
4		Peterson	Kyle	KP	Ellen		Ed R.
5		[illegible]	Robert	RC	Elly/Ellen		E. Rothenay
6		Tostado	Jazmin	JT	LB		D. Lang
7		COOL	JAMES	JC	Long Beach		B. Berwager
8		CAMPAS	CHRIS	CC	ELLY/ELLEN		ED RUTHENAY
9		SANCHEZ	JOHNNY	JS	ELLY		[signature]
10		~~[illegible]~~ AGUIRRE	LEO	LA	~~[illegible]~~ PUMP STATION		
11		Cancino	Gabriel	GC	Well Sky		
12		Rothenay	Ed	ER	Supervising Accountant		~~[illegible]~~ Cool
13		Sciarri	Mike	MS	Maint.		ED Rothenay
14		MULLIN	TERRY	TM	COMP		
15		ROLLINS	Bill	WJR	Control Room		ED ROTHENAY
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Training Course Registration

Course Title: NPDES Training 2018 **Course Code:** NPDES 2018 **Today's Date:** May 1, 2018

Location: Beta-Platform Eureka **Instructor:** Diana Lang **Course Length:** 1 hour

	Employee #	Attendee's Name			Work Location	Phone #	Supervisor
		Last Name	First Name	Initial			
1	N/A	Lopez	Rudy	RL	Eureka	N/A	
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3		~~Daniel~~ Quelas	Daniel	DQ	EUREKA		
4		Richmond	Kepper	KRK	EU		
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Training Course Registration

Course Title: NPDES Training 2018 **Course Code:** NPDES 2018 **Today's Date:** May 7, 2018

Location: Beta-Platform Ellen/Elly **Instructor:** Diana Lang **Course Length:** 1 hour

	Employee #	Attendee's Name			Work Location	Phone #	Supervisor
		Last Name	First Name	Initial			
1	N/A	SALIBA	ADAM	AS	Elly	N/A	Robert Perkins
2		BENNETT	BLAKE	BB	ELLEN		PAUL NAPOLEONE
3		Fernandez	Feliciano	FF	Ellen		Robert Perkins
4		KRAMER	Tom	TK	ELLY		ROBERT PERKINS
5		~~FRANK~~ LOPEZ	FRANK	F.L.	ELLEN		PAUL NAPOLEONE
6		COLEMAN	CHARLES	C.C.	ELLY/ELLY/ELLY		Diana Lang
7		THOMPSON	HOWARD	HT	Elly Control Room		P. Napoleone
8		PRITCHARD	GENE	G.P	Elly Control Room		P. NAPOLEONE
9		~~Alex~~ Orth	Alex	A.O	ELLY		P. Napoleone
10		~~CHUM~~ LY	CHUM	CSL	ELLY		ROBERT PERKINS
11		Neal	Chris	CN	elly		Robert Perkins
12		COOL	JAMIE	JC	L.B.		Bonnie Barringer
13		NAPOLEONE	PAUL	PN	ELLEN / Elly		JAMIE COOL
14		PERKINS	BOB	BP	ELLEN		PAUL N.
15		ALVARO	~~BETO~~	AAA	ELLY/ELLEN		R. PERKINS
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Training Course Registration

Course Title: NPDES Training 2018 **Course Code:** NPDES 2018 **Today's Date:** May 8, 2018

Location: Beta-Platform Eureka **Instructor:** Diana Lang **Course Length:** 1 hour

	Employee #	Attendee's Name			Work Location	Phone #	Supervisor
		Last Name	First Name	Initial			
1	N/A	~~STEVEN~~ A MANTHUR	STEVE	A	BETA	N/A	
2		MEZA ~~FULIO~~	JULIO	JM	BETA		
3		Garcia	Aaron	A	Beta		
4		JOHNSON	ERIK	J	~~BETA~~		
5		BOURGEOIS	BUCK	BB	EUREKA		
6		VASQUEZ	ALEX	AV	EUREKA		
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Section G. Certification

"I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Bruce Berwager
Vice President of Operations